

Problems



Climate Change



Population Growth



Water Shortages



Industrial Impact



Solutions



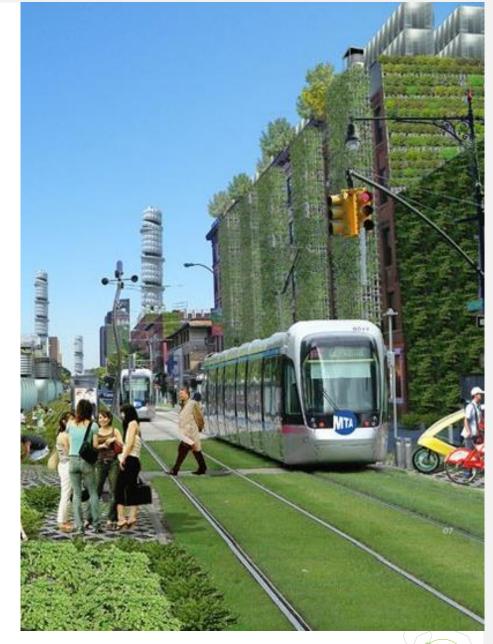




Conservation of Resources & Recycling



Research
Energy
Production
& Transportation
Alternatives

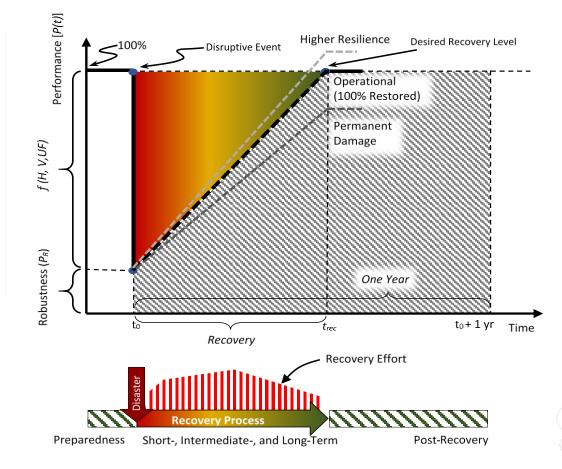


What is Sustainability and Resilience?

Sustainability Definition: the process of people maintaining change in a balanced environment



Resilience Definition: the ability to recover, withstand, and adapt from a challenge/hazard



Net Zero Buildings



The central nervous system for the net zero energy home helps Solar Photovotaic 3 kW to 4 kW solar array on the homeowners to optimize energy consumption. roof to meet energy require-ments of the home. Supplementary renewable Smart Meter A Communication gateway between the Smart Grid and Energy Efficient Lighting
High efficiency LED and OLED lighting. High efficiency Energy Star Appliances that help shed load from Geothermal Heat Pumps
Reduces HVAC and water heating energy requirements by 30%. the grid, helping consumers save money during peak demand and pricing times. Energy Storage

Battery storage for backup
power and peak loads. GE Hybrid Heat Pump Water Heater Uses less than half the energy of a conventional electric water heater and can operate at 20% of peak

Home Energy Manager

Paisano Green Community – Senior Housing

Resilient Buildings

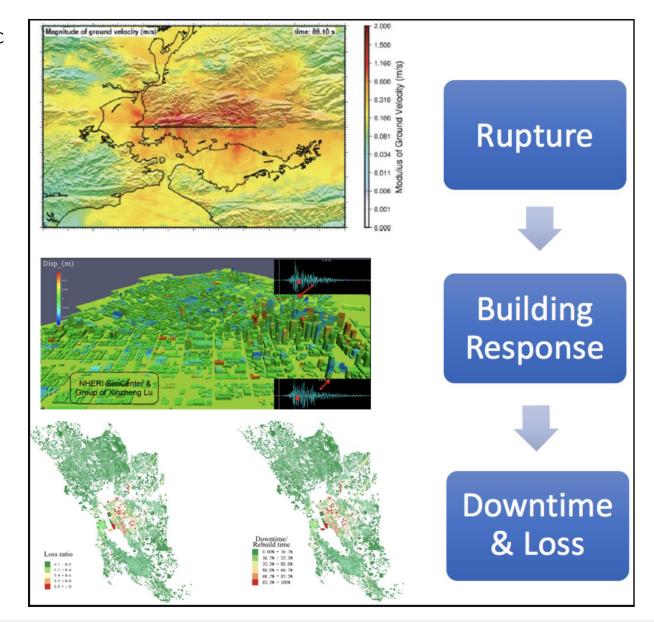


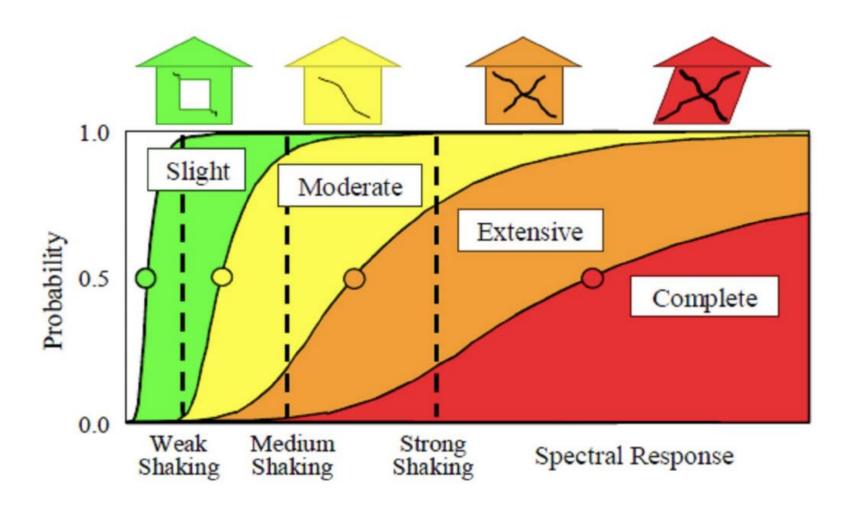


Mitigation Efforts: Pre-Hazard

Risk Assessment

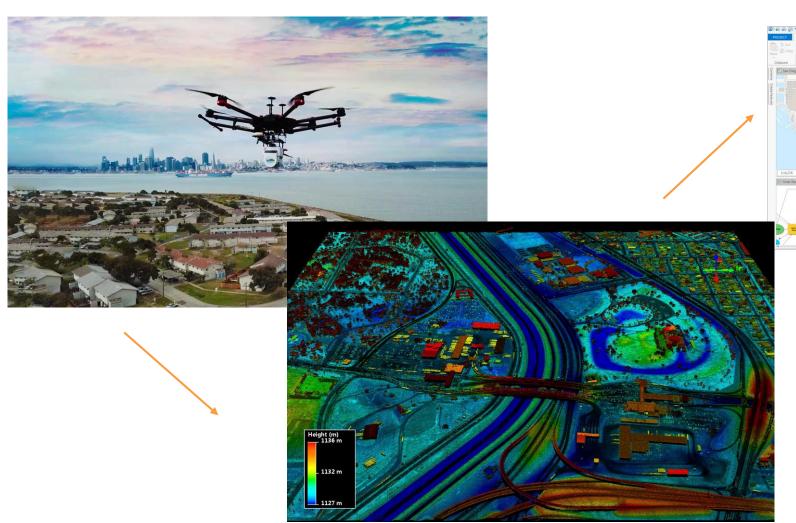
Seismic

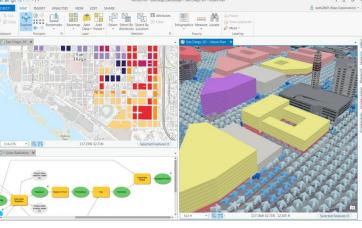




Mitigation Efforts: Pre-Hazard

Building Inventory





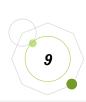
Building Features

Height

Number of Stories

Footprint

Material



Mitigation Efforts: Pre-Hazard

City of El Paso & UTEP



Mitigation Efforts: Post-Hazard

Field & Virtual Assessments



Building Resilience through Reconnaissance

www.steer.network















Rehabilitation & Recovery



Prevention & Mitigation



How can you improve our community?

Think Green Think Quality of Life

Transportation

Safety

Wildlife Conservation

Infrastructure

Innovation

